Patent Claims

1. A high-voltage power breaker having an interrupter unit which is enclosed, with a gap, by a gas-tight housing (16) filled with quenching gas, with the interrupter unit having two arcing contacts (1,2), at least one of which can be driven during a switching operation and with any arc which is produced between the arcing contacts (1,2) during disconnection being blown by means of a blowing device (5,6) with the quenching gas, which afterwards at least partially flows away in the axial direction of the arcing contacts (1,2) and with a flow deflection device (9,10,11) which is not the same as the blowing device (5,6), being provided in the outlet-flow area of the quenching gas, in order to deflect the quenching gas flow through more than 90° radially outward, and a partition wall (18) is provided in order to separate the quenching gas flow before the deflection from the quenching gas flow after the deflection,
characterized
in that a nozzle body (11) is arranged on the partition wall (18) and, together with the flow deflection device (9,10,11), forms a nozzle constriction (12).

2. The high-voltage power breaker as claimed in claim 1,
characterized in that
the nozzle body (11) has a convex area, which faces a concave area of the flow deflection device (9,10,11).

3. The high-voltage power breaker as claimed in claim 2,

characterized in that the flow direction device (9,10,11) and the partition wall (18) are cylindrically symmetrical, and are arranged coaxially with respect to the arcing contacts (1,2).

4. The high-voltage power breaker as claimed in one of the preceding claims,
characterized in that,
in the sense of the quenching gas flow, a quenching gas cooling device (13) in the form of a body having through-openings is arranged downstream of the deflection device (9,10,11).

5. The high-voltage power breaker as claimed in one of the preceding claims,
characterized in that
the quenching gas cooling device (13) is cylindrically symmetrical.

6. The high-voltage power breaker as claimed in one of the preceding claims,
characterized in that
a further deflection device for the quenching gas is arranged downstream of the quenching gas cooling device (13).

7. The high-voltage power breaker as claimed in one of the preceding claims,
characterized in that
the flow deflection device (9,10,11) and/or the nozzle body (11) are/is composed of an insulating material, in particular PTFE or PVDF (polyvinylidene fluoride).